

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION**

CENTRIPETAL NETWORKS, LLC,

Plaintiff,

VS.

PALO ALTO NETWORKS, INC.,

Defendants.

No. 2:21-cv-00137-EWH-LRL

FINAL PRETRIAL ORDER

Plaintiff Centripetal Networks, LLC (“Centripetal” or “Plaintiff”) and Defendant Palo Alto Networks, Inc. (“PAN”) (collectively, the “Parties”) submit the following First Amended Proposed Final Pretrial Order in view of the Court’s January 10 and 16 Pretrial Conferences, the Court’s ruling on PAN’s Motion For Summary Judgment of Non-Infringement on U.S. Patent No. 10,735,380, and PAN’s notification of changes to the invalidity defenses it will try. The Parties have stipulated as to various matters identified herein and having identified exhibits, witnesses, factual contentions and triable issues:

It is hereby ORDERED as follows:

I. AGREED STIPULATION OF UNDISPUTED FACTS

The Parties agree that the following facts are stipulated as undisputed for purposes of this litigation. The Parties’ statement of stipulation of undisputed facts will become a part of the evidentiary record in the case, and may be read or provided to the jury:

1. The Court has jurisdiction over the Parties, claims, and defenses in this action. Venue is proper in this forum.
2. Centripetal is a limited liability company duly organized and existing under the laws of the State of Delaware, with its principal place of business in Reston, Virginia.
3. PAN is a Delaware corporation with its principal place of business at Santa Clara, California, and conducts business in Virginia.
4. On March 12, 2021, Centripetal filed the Complaint asserting PAN’s infringement of U.S. Patent Nos. 10,530,903 (the “’903 Patent”); 10,659,573 (the “’573 Patent”); 10,567,437 (the “’437 Patent”). (Dkt. 1).
5. On July 9, 2021, Centripetal filed the Amended Complaint to add an assertion of infringement of U.S. Patent No. 10,931,797 (the “’797 Patent”). (Dkt. 65).

6. Collectively, the Asserted Patents are the '903 Patent, '573 Patent, '437 Patent, and '797 Patent.

7. Centripetal alleges that it owns the Asserted Patents.

8. Centripetal alleges that PAN has and continues to infringe Claim 10 of the '903 Patent; Claims 1 and 9 of the '573 Patent; Claims 1, 12, 17 of the '797 Patent; and Claim 8 of the '437 Patent (collectively, the "Asserted Claims").

9. On January 7, 2020, the United States Patent and Trademark Office issued the '903 Patent, entitled "Correlating Packets in Communications Networks."

10. The application for the '903 Patent was filed on January 24, 2017, as Application No. 15/413,947.

11. On May 19, 2020, the United States Patent and Trademark Office issued U.S. Patent No. 10,659,573 (the "'573 Patent"), entitled "Correlating Packets in Communications Networks."

12. The application for the '573 Patent was filed on August 28, 2019, as Application No. 16/554,293.

13. On February 23, 2021, the United States Patent and Trademark issued U.S. Patent No. 10,931,797 (the "'797 Patent"), entitled "Correlating Packets in Communications Networks."

14. The application for the '797 Patent was filed on April 21, 2020, as Application No. 16/854,094.

15. The '903, '573, and '797 Patents claim priority to U.S. Patent No. 9,264,370, the application for which was filed on February 10, 2015.

16. The '903, '573, and '797 Patents expire on February 10, 2035.

17. On February 18, 2020, the United States Patent and Trademark Office issued U.S. Patent No. 10,567,437 (the “’437 Patent”), entitled “Methods and Systems for Protecting a Secured Network.”

18. The application for the ’437 Patent was filed on August 24, 2018, as Application No. 16/111,524.

19. The ’437 Patent claims priority to U.S. Patent No. 9,137,205, the application for which was filed on October 22, 2012.

20. The ’437 Patent expires on October 22, 2032.

II. PROPOSED STIPULATIONS ON TRIAL PROCEDURE

A. Trial Phases

The Parties have agreed on the order that trial will follow, as set forth below:

- (1) Centripetal’s Case-in-Chief on Infringement, Damages, and Willfulness;
- (2) PAN’s Rebuttal on Infringement, Damages, and Willfulness, and PAN’s Case-in-Chief on Invalidity;
- (3) Centripetal’s Rebuttal on Invalidity

By **7:00 PM ET** the day before the party that is presenting its Case-in-Chief expects to rest, its counsel will inform opposing counsel its best estimate of when it expects to rest.

B. Exhibits

1. Exhibit Lists

The parties have segregated the exhibits that may be offered into evidence at trial into exhibit lists. A Joint Exhibit List, including documents identified by both parties and not objected to was filed at 686-1. A Second Amended Overlapping Exhibit List was filed at Dkt. No. 796. The parties agree that the exhibits in Dkt. No. 796 may be admitted after laying the proper foundation. Centripetal’s Third Amended Exhibit List and PAN’s objections thereto was filed at

Dkt. No. 795; PAN's Second Amended Exhibit List and Centripetal's objections thereto was filed at Dkt. No. 767-1.

The parties reserve the right to object to any additional documents sought to be added to the Exhibit Lists and further reserve the right to object to any additional documents added to the Exhibit Lists under the Federal Rules of Evidence, the Federal Rules of Civil Procedure, or any other appropriate basis. The parties propose that as a modification of the requirements under Local Rule 79 and Paragraph 31 of Dkt. No. 353, the parties will deliver to the Court one (1) copy of their respective exhibits, sequentially numbered with tabs, in binders, one day before trial, excluding PAN's source code.

2. Efforts to Resolve Objections

The Parties have been working diligently to resolve or narrow all objections lodged as to their respective exhibits and will continue their efforts to resolve the objections to each other's proposed exhibits.

3. Exhibits to Which No Objections Have Been Made

The Parties agree that the documents, summaries and other exhibits listed on their Exhibit Lists to which no objection has been specified may be introduced into evidence, without the necessity of further proof of admissibility through a witness, provided that a witness offers testimony about the exhibit at trial, either live or by deposition. This is without prejudice to motions *in limine* and *Daubert* motions concerning certain of these documents and related testimony.

4. Cross Examination and Impeachment Exhibits

The Exhibit Lists set forth the Parties' exhibits for their respective Cases-in-Chief. The Exhibits Lists also include documents relied upon by experts in rendering opinions which may or

may not be introduced into evidence. The Parties reserve the right to offer exhibits for purposes of cross examination or impeachment that are not included in the Exhibit Lists.

C. Procedures Regarding Witnesses and Exhibits

The Parties are required to disclose the expected order in which the witnesses will be called, and use good faith in identifying non-demonstrative exhibits that are intended to be used in the direct testimony of each witness or as part of opening statements. Each Party must identify to opposing counsel the identity of any live witnesses to be called at trial (and the order in which they will be called, including the order of witnesses to be called by deposition) by no later than 6:00 p.m. two (2) calendar days before the trial day on which that witness is expected to testify (e.g., witnesses to be called on Tuesday must be disclosed by 6:00 p.m. the preceding Sunday). Based on the witnesses and order of witnesses already disclosed by the parties, the parties will follow the disclosure schedule set forth herein. To the extent any changes become necessary upon notification that the other party will be resting its case-in-chief the following day, the rebutting party will disclose any changes to its witnesses and exhibits for the first day of its case-in-chief by 9:00 am the day after notification of resting.

Regardless of the disclosure schedule in the preceding paragraph, exhibits for an expert rebutting another expert's opinions need not be disclosed until after the testimony of the expert whose testimony is being rebutted has testified.

Except for when a fact witness is testifying on the stand, until they are excused, fact witnesses are not to be allowed into the courtroom during the testimony of other witnesses. Fact witnesses should be sequestered when evidence is being presented during trial, which includes fact witnesses not having access to trial transcripts during trial. The only exceptions are each party's client representative, who will be allowed in the courtroom throughout the trial, even if testifying

in the case. Expert witnesses designated under Federal Rule of Civil Procedure 26(a)(2)(B) may attend the trial proceedings, including while other witnesses are testifying.

Any exhibits to be used on direct examination with any live witness must be identified, with the name of the witness, by no later than 6:00 p.m. two (2) calendar days before the start of the trial day on which that exhibit will be offered (e.g., the exhibit(s) for witnesses to be called on Tuesday must be disclosed by 6:00 p.m. the preceding Sunday). Objections to exhibits disclosed by a party must be provided by 7:00 p.m. two (2) calendar days before the start of the trial day on which that exhibit will be offered (e.g., objections to exhibits for witnesses to be called on Tuesday must be provided by 7:00 p.m. the preceding Sunday).

To the extent either party intends to use in cross examination an exhibit to be admitted that is not on that party's Second Amended Trial Exhibit List, but was on that party's original exhibit list, that party shall notify the other party at 8:00 a.m. the day before the start of the trial day on which that exhibit will be offered. The requirements of this paragraph do not apply to exhibits used strictly for impeachment or to exhibits on a party's Second Amended Trial Exhibit List.

The parties will each designate one or more counsel who shall meet and confer regarding any such objections by 8:30 p.m. on the day when the objections are provided. To the extent the parties are unable to resolve their remaining objections to exhibits, witnesses, or demonstratives, they will provide to the Court a short description of the issue of no longer than a page and attach any underlying documents by 11:59 p.m. via e-mail on the day when the objections are provided and they will present their objections to the Court at 9:00 a.m. the day the exhibits, witnesses, or demonstratives are to be presented.

The Parties will cooperate in seeking to have the Court resolve any objections they are unable to resolve among themselves prior to the opening statements or proposed testimony. Each

side is to provide direct exhibit binders to opposing counsel and to the Court at the beginning of each direct examination. Similarly, each side will provide a copy of cross-examination exhibits to opposing counsel and the Court at the beginning of each cross-examination to the extent any new exhibits will be referred to during cross-examination. Exhibits that could not have been reasonably anticipated as necessary will not be objected to because they were not included in the cross-examination binder.

The Parties agree that any exhibit listed on a party's own exhibit list as to which no objection remains pending at the time of opening statements may be shown to the jury by that party during opening statements if the exhibit will be the subject of testimony and presented to the jury by a witness at trial.

Any document that on its face appears to have been authored or prepared by an employee, officer, or agent of a party, or was produced from the files of a party, shall be deemed *prima facie* authentic under F.R.E. 901 and 902, subject to the right of the party against whom such a document is offered to introduce evidence to the contrary. The parties reserve the right to add additional deposition designations to establish the foundation and authenticity of an exhibit to the extent the admissibility of a particular document is challenged.

Legible or better quality copies may be offered and received in evidence in lieu of originals thereof, subject to all foundational requirements and other objections which might be made to the admissibility of such originals, and subject to the right of the party against whom they are offered to inspect an original upon request.

D. Procedures Regarding Deposition Testimony

The Parties are required to provide opposing counsel the identity of any deposition designations that will be presented to the jury by no later than 7:00 p.m. four (4) calendar days

before the start of the trial day on which those designations are expected to be presented (e.g., deposition designations to be presented to the jury on Tuesday must be provided by 7:00 p.m. the preceding Friday), along with a list of any non-demonstrative exhibits to be introduced along with those deposition designations. Objections and counter-designations to any such deposition designations disclosed by a party must be provided by 7:00 p.m. three (3) calendar days before the start of the trial day on which those designations are expected to be presented. Objections and counter-counter-designations to any such deposition counter-designations disclosed by a party must be provided by 8:00 p.m. three (3) calendar days before the start of the trial day on which those designations are expected to be presented. The Parties will each designate one or more counsel who will meet and confer regarding any objections, including objections to any applicable counter-designations, by 8:30 p.m. the same day that such objections are disclosed. The Party introducing the deposition testimony shall be responsible for editing the deposition video to include the testimony and any counter-designation testimony, and remove any attorney objections, and provide a final version of the deposition testimony excerpts (testimony clip report) to the other party by 7:00 p.m. the day before the testimony is to be played to the jury. To the extent the Parties are unable to resolve their objections to deposition witnesses, testimony or exhibits, the Parties will provide to the Court a short description of the issue of no longer than a page and attach any underlying documents by 11:59 p.m. via e-mail on the day when the objections are provided and they will present their objections to the Court at 9:00 a.m. one-business day before the day they are to be presented.

The Parties agree that any counter-designations or counter-counter designations, to which the other party did not object or to which the Court overruled the objection, will be included in the reading (or video playing) of deposition designations, and that passages of testimony from a

deposition will be presented chronologically. The parties further agree to withdraw any objections or attorney colloquy contained with the deposition designations by both sides to the extent possible.

The Parties' current deposition designations, objections, counter-designations and objections thereto were previously filed at Dkt. 686-4 to 686-7. The Parties agree that, to the extent either Party amends or drops portions of its current deposition designations in Exhibit D or Exhibit E to Dkt. 686, the other Party reserves the right to designate such dropped testimony.

E. Demonstratives

Any demonstrative exhibits (including PowerPoint presentations, documentary, graphic, slide, animation, or any other type of demonstratives) to be used on direct examination with any live witnesses must be identified by no later than 6:00 p.m. two (2) calendar days before the start of the trial day on which that demonstrative will be presented (e.g., demonstrative exhibits for witnesses to be called on Tuesday must be disclosed by 6:00 p.m. the preceding Sunday), together with a copy of the demonstrative exhibit or picture of the demonstrative, to the extent the demonstrative is a physical object. Objections to demonstrative exhibits disclosed by a party must be provided by 7:00 p.m. two (2) calendar days before the start of the trial day on which that exhibit will be presented (e.g., objections to demonstrative exhibits for witnesses to be called on Tuesday must be provided by 7:00 p.m. the preceding Sunday). The parties will each designate one or more counsel who shall meet and confer regarding any such objections by 8:30 p.m. on the day when the objections are provided. To the extent the parties are unable to resolve their remaining objections, they will provide to the Court a short description of the issue of no longer than a page and attach any underlying documents by 11:59 p.m. on the day when the objections are provided

and they will present their objections to the Court at 9:00 a.m. the day the demonstratives are to be presented.

Based on the witnesses and order of witnesses already disclosed by the parties, the parties will follow the disclosure schedule set forth herein. To the extent any changes become necessary upon notification that the other party will be resting its case-in-chief the following day, the rebutting party will disclose any changes to its demonstratives for the first day of its case-in-chief by 9:00 am the day after notification of resting. Regardless of the disclosure schedule in the preceding paragraph, demonstratives for an expert rebutting another expert's opinions need not be disclosed until after the testimony of the expert whose testimony is being rebutted has testified.

Any demonstratives (including PowerPoint presentations, documentary, graphic, slide, animation, or any other type of demonstratives) to be used during opening statements are to be exchanged by 2:00 p.m. the day before the opening statements. Any objections to those demonstratives must be provided by 4:00 p.m. the same day the demonstratives are received (i.e., the day before the opening statements). The parties shall meet and confer telephonically or in person in an attempt to resolve any objections to these demonstratives at 5:00 p.m. Demonstratives for closing arguments need not be exchanged.

The parties shall make available for inspection all non-documentary demonstratives (e.g., poster boards) or live product demonstrations, such as physical exhibits, physical prior art, or physical products, they plan to use at trial during direct examination, but not for cross-examination, by 6:00 p.m. two (2) calendar day before their intended use. Any objections to those non-documentary demonstratives and live product demonstrations shall be provided by 7:00 p.m. two days before their intended use. The parties shall meet and confer telephonically or in person in an attempt to resolve any objections to these demonstratives by 8:30 p.m. To the extent the parties

are unable to resolve their objections to non-documentary demonstratives, the parties will provide to the Court a short description of the issue of no longer than a page by 11:59 p.m. via e-mail on the day when the objections are provided and they will present their objections to the Court at 9:00 a.m. one-business day before the day they are to be presented at trial.

Each side is to provide to opposing counsel and the Court, at the beginning of a witness's examination, each demonstrative that may be used on direct or cross-examination.

F. Stipulations Regarding Subject Matter Not To Be Presented To the Jury

1. PAN cannot characterize or suggest that Centripetal is a patent licensing business.
2. The Parties shall be precluded from introducing evidence, testimony, or argument that the Court has the power to dismiss frivolous suits and/or frivolous counterclaims.
3. The Parties shall be precluded from introducing evidence, testimony, or argument regarding the size of a party's law firm, the size of a party's trial team, the number of attorneys representing a party, or the amount spent by either party in pursuing/defending the lawsuit.
4. The Parties shall be precluded from introducing evidence, testimony, or argument that the other party had an affirmative duty to seek opinion of counsel and/or any inference that may be drawn as to what the contents of such an opinion would have been.
5. Neither party will ask questions or make statements to invoke a privileged or protected answer, including any materials that are privileged or that have been presented outside of the jury to establish/prevent a finding of privilege.
6. The Parties shall be precluded from introducing evidence, testimony, or argument referring to the role or presence in the courtroom of jury consultants or shadow jurors, or the use of focus groups or mock proceedings to assist with trial preparation, jury selection, or trial.

7. Centripetal shall be precluded from introducing evidence, testimony, or argument regarding discussions, communications or “meetings” Centripetal allegedly had with Ropes & Gray, other than Ropes & Gray’s role as counsel for PAN in this litigation, including: any claim of knowledge or notice imputed to PAN and any reference or discussion to the facts in Centripetal’s denied motion to disqualify and PAN’s granted motion to compel with respect to RFA 49.

G. Handling of Source Code and Highly Confidential Material

Consistent with Paragraph 59 of the Protective Order, each party’s trial graphics vendor may make a single digital copy of source code printed during discovery in order to pre-mark the electronic copy as an exhibit for the limited purpose of displaying the source code in the Courtroom during trial. Once trial is completed, that vendor will certify to the other party the deletion of all such pages of source code in digital format. The Parties agree that only specific source code pages specifically identified during trial may be offered into evidence to become part of the trial record. Given the sensitivity of source code, the Parties agree that any excerpts of source code will be displayed only to the jury, the Court, and the witness, not on screens viewable by the public during trial. If PAN seeks to have the courtroom sealed during the presentation of any of its source code, PAN will notify the Court of its request in advance and move for sealing. The Parties will meet and confer regarding the scope and detail of anticipated testimony on source code to best assess whether the courtroom should be sealed.

III. WITNESSES

The Parties agree that for current employees of a party, any such witness that such party expects to call in their case-in-chief will appear live. For those witnesses who will be called in a party’s case-in-chief via deposition, the Parties agree that any counter-designated testimony will

be presented to the jury together with the designated deposition testimony, subject to the resolution of any objections to the designated or counter-designated testimony, as discussed above.

A. Centripetal's Witnesses

Centripetal expects to call the witnesses identified in its correspondence with the Court on January 18, 2024 at trial.

B. Palo Alto's Witnesses

PAN expects to call the witnesses identified in its correspondence with the Court on January 18, 2024 at trial

IV. FACTUAL CONTENTIONS

The Parties agree that this list of Factual Contentions is not exhaustive, may be supplemented and that the absence of a Factual Contention on this list shall not constitute waiver and shall not preclude the admission of relevant evidence at trial. The factual contentions of the Parties (in addition to the Stipulated Facts identified in Section I, above) are as follows:

A. Centripetal's Factual Contentions¹

1. Centripetal is a start-up company that was founded in 2009 by Steven Rogers.
2. Since its founding, Centripetal has been involved in the research and development of award-winning computer network security technologies.
3. Centripetal designs, markets, and sells network integrity and cyber-security solutions. Centripetal has sold its threat intelligence gateway system products and services known as RuleGATE and CleanINTERNET. Not every version of Centripetal's products and services

¹ Centripetal reserves the right to amend or supplement its factual contentions based on any position that Defendant takes or any evidence that Defendant offers at trial that may affect Centripetal's contentions.

has been offered for sale or sold, and as the products and services have been developed over time, the functionality has been updated.

4. Centripetal's customers include banks, small and large enterprise customers, and government agencies including the U.S. Department of Homeland Security.

5. Centripetal owns an intellectual property portfolio that covers various aspects and methods for protecting networks from advanced threats. Centripetal's intellectual property portfolio contains numerous issued patents.

6. Centripetal's '903 Patent, '573 Patent, '437 Patent, and '797 Patents were a result of Centripetal's extensive research and development in the field of network analysis and cyber security.

7. The invention of the '903 Patent was conceived by October 2014 and constructively reduced to practice on February 10, 2015.

8. The inventions of the '797 Patent were conceived by October 2014 and constructively reduced to practice on February 10, 2015.

9. The inventions of the '573 Patent were conceived by October 2014 and constructively reduced to practice on February 10, 2015.

10. The invention of the '437 Patent was conceived by October 2010 and constructively reduced to practice on October 22, 2012.

11. The application for the '903 Patent was published on December 14, 2017.

12. The application for the '573 Patent was published on December 26, 2019.

13. The application for the '797 Patent was published on August 6, 2020.

14. The application for the '437 Patent was published on July 25, 2019.

15. Consistent with its routine business practice, Centripetal marked its products and website with the Asserted Patents since their issuance.

16. PAN makes, uses, sells, and offers for sale hardware and software products that include the technologies accused of infringing that protect enterprise networks. PAN's infringing technologies make use of machine learning and/or artificial intelligence in their infringement of the Asserted Patents. PAN's infringing technologies are found in at least the following (collectively "the Accused Products"):

- "NGFW" (running PAN-OS 9.0 and higher): PA-7000 Series (PA-7080, PA-7050, PA-7000); PA-5400 Series NGFW (PA-5410, PA-5420, PA-5430, PA-5440, PA-5450); PA-5200 Series (PA-5280, PA-5260, PA-5250 and PA-5220); PA-3400 Series NGFW (PA-3410, PA-3420, PA-3430, and PA-3440); PA-3200 Series (PA-3260, PA-3250 and PA-3220); PA-1400; PA-800 Series (PA-850, PA-820); PA-400 Series (PA-460, PA-450, PA-440, PA-415, PA-445); PA-220 Series (PA-220, PA-220R); VM-Series Virtual NGFW (VM-50, VM-50 Lite, VM-100, VM-300, VM-500, VM-700); NGFW Cloud; Prisma Access;

- "NGFW Subset": PA-7000 Series (PA-7080, PA-7050, PA-7000); PA-5400 Series NGFW (PA-5410, PA-5420, PA-5430, PA-5440, PA-5450); PA-5200 Series (PA-5280, PA-5260, PA-5250 and PA-5220); PA-3400 Series NGFW (PA-3410, PA-3420, PA-3430, and PA-3440); PA-3200 Series (PA-3260, PA-3250 and PA-3220).

- "Panorama" (running PAN-OS 9.0 and higher): M-100, M-200, M-500, M-600, and Virtual Appliances;

- "Threat Prevention" subscription;

- "Advanced Threat Prevention" ("ATP") subscription;

- “Domain Fronting”: PAN’s Domain Fronting Detection feature, released as part of PAN-OS v10.2 (Nebula), part of Threat Prevention or ATP subscriptions;
- “DNS Security Service”: DNS Security license or Threat Prevention license;
- “Cortex XDR”: Cortex XDR Pro per Endpoint, Cortex XDR Cloud per host, Cortex XDR Pro per TB; and Unit 42 MDR;
- “Cortex XSOAR”: Cortex XSOAR Community Edition, XSOAR Threat Intel Management (“TIM”), XSOAR Starter Edition, XSOAR full edition, which run Cortex XSOAR software version 5.5 and subsequent releases;
- “Cortex XSIAM”: Cortex XDR and Cortex XSOAR;
- “AutoFocus”: AutoFocus Threat Intelligence Service, including Standard and Enterprise subscriptions.

17. PAN manufactures, tests, develops, uses, offers for sale and sells the technologies in PAN’s Accused Products in the United States.

18. PAN infringes Claim 10 of the ’903 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN’s NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or, NGFW + Cortex XSIAM.

19. PAN induces infringement of Claim 10 of the ’903 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN’s NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or, NGFW + Cortex XSIAM.

20. PAN infringes Claims 1 and 9 of the '573 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or, NGFW + Cortex XSIAM.

21. PAN induces infringement of Claims 1 and 9 of the '573 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or, NGFW + Cortex XSIAM.

22. PAN contributes to the direct infringement of Claims 1 and 9 of the '573 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or, NGFW + Cortex XSIAM.

23. PAN infringes Claims 1, 12, 17 of the '797 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; NGFW + Cortex XSIAM; Cortex XDR + Cortex XSOAR; and/or, Cortex XSIAM.

24. PAN induces infringement of Claims 1, 12, 17 of the '797 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; NGFW + Cortex XSIAM; Cortex XDR + Cortex XSOAR; and/or, Cortex XSIAM.

25. PAN contributes to the direct infringement of Claims 1, 12, 17 of the '797 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; NGFW + Cortex XSIAM; Cortex XDR + Cortex XSOAR; and/or, Cortex XSIAM.

26. PAN infringes Claim 8 of the '437 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW + Panorama; and/or, Panorama.

27. PAN induces infringement of Claim 8 of the '437 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW + Panorama; and/or, Panorama.

28. PAN contributes to the direct infringement of Claim 8 of the '437 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW + Panorama; and/or, Panorama.

29. PAN's infringement of the Asserted Patents has been and continues to be willful and deliberate.

30. PAN is and has been aware of Centripetal since at least as early as 2014.

31. Centripetal and PAN had discussions regarding Centripetal's patented technology in 2016 and 2017, and the parties signed a mutual non-disclosure agreement for purposes of evaluating a potential partnership between the two companies. Since 2016, PAN visited Centripetal's website hundreds of times, viewing pages regarding Centripetal's business and products, and interacted with Centripetal at industry conferences where Centripetal provided demonstrations of its marked products.

32. In 2016-2017, Centripetal's investment banker, Oppenheimer, reached out to PAN to consider a potential partnership and provided information that Centripetal had numerous issued patents and applications.

33. As a result of PAN's infringement of the Asserted Patents, PAN has been able to attract customers and grow revenues.

34. PAN's Accused Products compete with Centripetal's products and services.

35. In 2017, Centripetal filed a lawsuit against competitor Keysight Technologies, Inc. and Ixia, for infringement of its patents, including U.S. Patent No. 9,137,205, U.S. Patent No. 9,264,370, U.S. Patent No. 9,413,722, U.S. Patent No. 9,560,077, U.S. Patent No. 9,565,213, and U.S. Patent No. 9,917,856, concerning accused products ThreatARMOR, Vision ONE/7300/7303 including AppStack and SecureStack, and BreakingPoint. The case settled mid-trial in 2018 with the parties executing a Binding Term Sheet. The Binding Term Sheet ("Keysight License") included a one-time payment of \$25 million for past damages and royalties.

36. The Keysight License is technically and economically comparable to the hypothetical negotiation for damages between Centripetal and PAN.

37. There is an absence of available and acceptable non-infringing alternatives.

38. At no point in time did PAN redesign its Accused Products in an attempt to avoid infringement of the Asserted Patents.

39. PAN has failed to identify any purported products or non-patent references that qualify as prior art to the Asserted Patents.

40. PAN has not identified any prior art that anticipates or renders obvious Centripetal's Asserted Patents.

41. After Centripetal filed its Complaint, PAN filed petitions for *inter partes* review ("IPR") of all the asserted claims of the '903, '573, and '437 Patents. PAN also filed a petition for post-grant review ("PGR") of the asserted claims of the '797 Patent.

42. The U.S. Patent Trial & Appeal Board ("PTAB") denied institution of IPR or PGR of the asserted claims of the '797, '573, and '437 Patents over the prior art asserted by PAN in its Petitions.

43. The PTAB issued a final written decision finding the asserted claim of the '903 Patent patentable over the prior art asserted by PAN in its petition

44. The alleged prior art asserted by PAN is cumulative of prior art that was considered by the Patent Office during the original prosecution of the Asserted Patents and/or PAN's Petitions for IPR that were denied by the PTAB.

45. PAN used the best prior art in an attempt to invalidate the claims of the Asserted Patents in this case. The three judges at the PTAB determined that PAN's best prior art did not rise to the level of instituting an IPR or PGR on the asserted claims of the '797, '573, '437, even though the standard to institute a petition in front of the PTAB is much lower than the clear and convincing standard required before a district court. The three judges at the PTAB determined that PAN's best prior art did not render Claim 10 of the '903 Patent invalid.

46. The Asserted Claims are not abstract.

47. The Asserted Claims were not conventional, well-known or routine at the time they were invented.

48. The Asserted Claims are adequately supported by the originally-filed specification and original claims for each of the Asserted Patents.

49. There was a long-felt need for the claimed inventions, which have been copied by others. The inventions of the Asserted Claims, as embodied in Centripetal's products, have been praised by others and recognized by the industry. Further, the claimed inventions have enjoyed commercial success, as demonstrated by the success of PAN's Accused Products.

50. Centripetal cannot fairly compete in the security industry against a company of PAN's size that is using its patented technologies.

51. PAN will continue its infringement of the Asserted Patents unless enjoined by this Court.

52. Centripetal has suffered damages as a result of PAN's infringement of the Asserted Patents and is entitled to an award of damages adequate to compensate it for PAN's infringement.

53. Centripetal is also entitled to a finding that this case is exceptional and award of enhanced damages for past and continued willful conduct, as well as an award of interest, costs, attorneys' fees and any other relief the Court deems equitable and just.

54. Centripetal is entitled to an injunction to prohibit PAN's continued infringement.

55. If PAN's infringement is not enjoined by this Court, Centripetal will suffer significant and irreparable harm as a result of PAN's continuing infringement post-trial, and continued willful infringement, particularly if PAN is permitted to continue to compete with Centripetal using Centripetal's patented technology.

56. The absence of an injunction would deeply impact Centripetal's business, but issuance of one would have significantly less relative impact on PAN's business.

57. The public would not be harmed by an injunction, because Centripetal could continue to fill the public's need for the patented inventions by scaling up its business to deliver the technologies to PAN's customers.

58. PAN's infringement and conduct justifies finding this dispute an exceptional case.

B. Palo Alto's Factual Contentions²

1. PAN was founded in 2005 by Nir Zuk.

² PAN reserves the right to amend or supplement its factual contentions based on any position that Plaintiff takes or any evidence that Plaintiff offers at trial that may affect PAN's contentions.

2. In June 2007, PAN announced its first Next Generation Firewall (NGFW) products with its PA-4000 series firewalls.

3. PAN continues to develop or acquire its own patented technology. PAN had over 500 U.S. active patents as of August 2023. PAN's patent rights covering its NGFWs date back to at least 2006, including U.S. Patent No. 8,009,566.

4. PAN employs nearly 14,000 personnel. PAN currently has approximately 100,000 worldwide firewall customers.

5. PAN's NGFW has utilized Application ID, Content ID, and User ID to analyze the contents of traffic since before 2012, when the first Asserted Patent was filed. PAN's NGFW product analyzes traffic on a session basis and perform application-level analysis of the contents of network traffic.

6. Centripetal's technology, including its products and patents, are built around packet filtering technologies that have existed from the early 1990s that looks at "5-tuple" information, including destination port, destination IP address, source port, source IP address, and protocol, to analyze traffic.

7. PAN's products, including its NGFW and Panorama products, that predate the priority dates of Centripetal's patents include substantial features that do not and cannot infringe any Asserted Patent.

8. PAN's products released after the earliest priority date of the Asserted Patents include substantial features that are not accused of infringement in this case.

9. PAN's products include features that provide value and drive consumer demand that are both unrelated to the Asserted Patents and that Centripetal was incapable of implementing

in its own products until recently, including the ability to decrypt internet traffic, to perform deep packet inspection, and to provide a cloud-delivered or “virtual” version of its products.

10. In June 2020, PAN introduced the industry’s first machine learning-powered firewalls.

11. Seven major versions of PAN’s PAN-OS software that runs on NGFW and Panorama products were released between November 15, 2007 and October 31, 2011, including versions 1.3 through 4.1. PAN-OS v. 4.1 was released on October 31, 2011. These versions of PAN-OS all pre-date the earliest Asserted Patent. PAN-OS v. 5.0 was released on November 13, 2012, predating the earliest priority date of the ’797, ’903, and ’573 Patents. PAN-OS v. 5.1 through 6.1 were released between May 9, 2013 and October 25, 2014, predating the earliest priority date of the ’797, ’903, and ’573 Patents.

12. Cortex XDR was announced February 26, 2019. Cortex XSOAR was announced on March 3, 2020.

13. Cortex XSIAM was announced on February 22, 2022.

14. PAN had no knowledge of any Centripetal patent prior to March 12, 2021 when the Complaint in this lawsuit was filed. PAN first learned of the ’437, ’903, and ’573 Patents on March 12, 2021 when the Complaint in this lawsuit was filed. PAN first learned of the ’797 Patent on July 9, 2021 when the First Amended Complaint in this lawsuit was filed.

15. There is no evidence that any PAN employee has visited Centripetal’s patent marking webpage or viewed any purported patent marking labels on any Centripetal product.

16. PAN does not directly or indirectly infringe Claim 8 of the ’437 Patent because the Accused Products do not perform one or more elements.

17. PAN does not directly or indirectly infringe Claim 10 of the '903 Patent because the Accused Products do not perform one or more elements.

18. PAN does not directly or indirectly infringe Claims 1 or 9 of the '573 Patent because the Accused Products do not perform one or more elements.

19. PAN does not directly or indirectly infringe Claims 1, 12, or 17 of the '797 Patent because the Accused Products do not perform one or more elements.

20. PAN's Panorama product running PAN-OS v.9.0 or later does not directly or indirectly infringe Claim 8 of the '437 Patent.

21. PAN's Panorama product running PAN-OS v.9.0 or later when combined with PAN's NGFW product running PAN-OS v.9.0 or later does not directly or indirectly infringe Claim 8 of the '437 Patent.

22. PAN's NGFW product running PAN-OS v.9.0 or later does not directly or indirectly infringe Claim 10 of the '903 Patent.

23. PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product does not directly or indirectly infringe Claim 10 of the '903 Patent.

24. PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product and PAN's XSOAR product does not directly or indirectly infringe Claim 10 of the '903 Patent.

25. PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XSIAM product does not directly or indirectly infringe Claim 10 of the '903 Patent.

26. PAN's NGFW product running PAN-OS v.9.0 or later does not directly or indirectly infringe Claims 1 and 9 of the '573 Patent.

27. PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product does not directly or indirectly infringe Claims 1 and 9 of the '573 Patent.

28. PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product and PAN's XSOAR product does not directly or indirectly infringe Claims 1 and 9 of the '573 Patent.

29. PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XSOAR product does not directly or indirectly infringe Claims 1 and 9 of the '573 Patent.

30. PAN's NGFW product running PAN-OS v.9.0 or later does not directly or indirectly infringe Claims 1, 12, and 17 of the '797 Patent.

31. PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product does not directly or indirectly infringe Claims 1, 12, and 17 of the '797 Patent.

32. PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product and PAN's XSOAR product does not directly or indirectly infringe Claims 1, 12, and 17 of the '797 Patent.

33. PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XSIAM product does not directly or indirectly infringe Claims 1, 12, and 17 of the '797 Patent.

34. PAN's XDR product when combined with PAN's XSOAR product does not directly or indirectly infringe Claims 1, 12, and 17 of the '797 Patent.

35. The asserted claim of the '903 Patent is invalid under 35 U.S.C. § 101 as directed to unpatentable subject matter.

36. The asserted claims of the '573 Patent are invalid under 35 U.S.C. § 101 as directed to unpatentable subject matter.

37. The asserted claims of the '797 Patent are invalid under 35 U.S.C. § 101 as directed to unpatentable subject matter.

38. The asserted claim of the '437 Patent is invalid under 35 U.S.C. § 112 based on a lack of written description support.

39. U.S. Patent Application Publication No. 2009/0262741 ("Jungck") was filed on June 29, 2009 and published on October 22, 2009.

40. U.S. Patent Application Publication No. 2009/0328219 ("Narayanaswamy") was filed on May 20, 2009 and published on December 31, 2009.

41. U.S. Patent Application Publication No. 2011/0072506 ("Law") was filed on September 23, 2010 and published on March 24, 2011.

42. U.S. Patent Application Publication No. 2008/0229415 ("Kapoor") was filed on October 29, 2007 and published on September 18, 2008.

43. U.S. Patent Appl. Pub. No. 2014/0280778 ("Paxton") was filed on March 13, 2014 and published on September 18, 2014.

44. U.S. Patent Appl. Pub. No. 2013/0262655 ("Deschenes") was filed on March 28, 2012 and published on October 3, 2013.

45. U.S. Patent No. 8,413,238 ("Sutton") was filed on July 21, 2008 and published on April 2, 2013.

46. European Patent Application EP 2482522 ("McDonald") was filed on January 30, 2012 and published on August 1, 2012.

47. "IP Agnostic Real-Time Traffic Filtering and Host Identification Using TCP Timestamps," 38th Annual IEEE Conference on Local Computer Networks ("Wicherski") was published October 2013.

48. ManageEngine's EventLog Analyzer was publicly available and in use prior to February 10, 2015.

49. Sourcefire 3D System 4.10 ("Sourcefire System") was offered for sale and sold on or around April 2011.

50. Sourcefire 3D System User Guide 4.10 ("Sourcefire User Guide") was published on or around April 2011.

51. Emerging Threats, available at <https://web.archive.org/web/20101202025325/http://rules.emergingthreats.net/open/snort-2.8.4/emerging-all.rules>, was published at least by December 2, 2010.

52. Microsoft Forefront Threat Management Gateway (TMG), Administrator's Companion ("TMG Administrator's Companion") was published February 2010.

53. Microsoft Forefront Threat Management Gateway 2010 ("TMG System") was offered for sale and sold in December 2009.

54. In 2016 and 2017, respectively, investment banking firms Shea & Co. and Oppenheimer, acting on behalf of Centripetal, contacted PAN for the purpose of exploring PAN's potential interest in acquiring, investing in, or partnering with Centripetal. After brief preliminary discussions between the Parties, no such transaction took place. Centripetal did not identify or disclose any Centripetal patent or patent application in the course of those communications with PAN. During that same period, Oppenheimer contacted over one hundred other technology companies and investors for similar purposes, without any resultant acquisition or investment.

55. If PAN is found to infringe a valid claim of any of the Asserted Patents, such infringement is not willful. PAN did not have knowledge of the Asserted Patents prior to this litigation, as stated above. Further, PAN has had a good-faith belief since the beginning of this

case that it did not infringe any valid claim. PAN’s good-faith belief is supported by—among other things—the fact that 6 out of 13 original patents identified in the Complaint were invalidated by the USPTO, and PAN’s non-infringement and invalidity positions, including those identified in its Motion for Summary Judgment and that will be presented at trial.

56. If PAN is found to infringe a valid claim of any of the Asserted Patents, Centripetal is not entitled to damages exceeding \$5 million in a paid-up, lump-sum royalty.

57. PAN does not make, use, sell, or offer for sale hardware and software products that infringe. PAN’s use of machine learning and/or artificial intelligence in its products does not infringe.

58. PAN contests Centripetal’s definition of “NGFW.” Centripetal did not identify “NGFW Cloud” or PA-3400 Series NGFWs (PA-3410, PA-3420, PA-3430, and PA-3440) as accused products during fact discovery.

59. PAN contests Centripetal’s definition of “NGFW Subset” for its accusations regarding the ’903, ’573, and ’797 Patents. Centripetal’s NGFW-only infringement theories for these patents are directed to the Automated Correlation Engine (“ACE”) feature that is only supported in NGFW models running the PAN-OS software version indicated in the table below. Centripetal’s “NGFW Subset” incorrectly defines the products that supported the Automated Correlation Engine in versions 9.0 and later. For example, the PA-5400 Series NGFWs did not support ACE before PAN-OS 10.2.

Version	<u>Models that support ACE</u>
9.0	Panorama—M-Series appliances and virtual appliances
9.1	PA-7000 Series fire walls
10.0	PA-5200 Series fire walls PA-3200 Series fire walls
10.1	Panorama—M-Series appliances and virtual appliances PA-7000 Series firewalls PA-5450 firewall PA-5200 Series firewalls

	PA-3200 Series firewalls
10.2	Panorama—M-Series appliances and virtual appliances
11.0	PA-7000 Series firewalls
	PA-5400 Series firewall
	PA-5200 Series firewalls
	PA-3400 Series firewalls
	PA-3200 Series firewalls

60. PAN contests that AutoFocus is accused of infringement. Centripetal did not disclose AutoFocus as an accused products during fact discovery.

61. PAN contests that XSIAM is accused of infringement by itself. Centripetal did not disclose XSIAM as an accused product without being combined with the NGFW during fact discovery.

62. PAN does not infringe Claim 10 of the '903 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or NGFW + Cortex XSIAM.

63. PAN does not induce infringement of Claim 10 of the '903 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or NGFW + Cortex XSIAM.

64. PAN does not contribute to the direct infringement of Claim 10 of the '903 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or NGFW + Cortex XSIAM.

65. PAN does not infringe Claims 1 and 9 of the '573 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW

Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or NGFW + Cortex XSIAM.

66. PAN does not induce infringement of Claims 1 and 9 of the '573 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or NGFW + Cortex XSIAM.

67. PAN does not contribute to the direct infringement of Claims 1 and 9 of the '573 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or NGFW + Cortex XSIAM.

68. PAN does not infringe Claims 1, 12, 17 of the '797 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or NGFW + Cortex XSIAM, Cortex XDR + Cortex XSOAR, and/or Cortex XSIAM.

69. PAN does not induce infringement of Claims 1, 12, 17 of the '797 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or NGFW + Cortex XSIAM, Cortex XDR + Cortex XSOAR, and/or Cortex XSIAM.

70. PAN does not contribute to the direct infringement of Claims 1, 12, 17 of the '797 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW Subset; NGFW + Cortex XDR; NGFW + Cortex XDR + Cortex XSOAR; and/or NGFW + Cortex XSIAM, Cortex XDR + Cortex XSOAR, and/or Cortex XSIAM.

71. PAN does not infringe Claim 8 of the '437 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW + Panorama and/or Panorama.

72. PAN does not induce infringement of Claim 8 of the '437 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW + Panorama and/or Panorama.

73. PAN does not contribute to the direct infringement of Claim 8 of the '437 Patent, directly or under the doctrine of equivalents, by making, using, testing, selling and offering for sale PAN's NGFW + Panorama and/or Panorama.

74. Centripetal has failed to identify any third party who directly infringes any asserted claim. Therefore, there is no evidence that PAN contributes to or induces any third party's direct infringement.

75. PAN does not infringe any valid Centripetal patent. PAN's infringement is thus not willful or deliberate.

76. Centripetal and its employees have visited PAN's website hundreds of times, including prior to the filing the Asserted Patents.

77. PAN's revenues and success are not attributable to any Centripetal-patented feature. PAN has been able to attract customers and grow revenue based on its industry leading products and features, none of which infringe any Centripetal patent.

78. Centripetal products are threat intelligence gateways. PAN does not make, use, or sell a threat intelligence gateway.

79. Centripetal's Binding Term Sheet ("Keysight License") is not technically and economically comparable to the hypothetical negotiation for damages between Centripetal and PAN.

80. There are available and acceptable alternatives to the accused features that Centripetal alleges infringe.

81. PAN has not redesigned its Accused Products to avoid infringement of the Asserted Patents because it does not infringe.

82. The Asserted Claims are directed to patent ineligible subject matter that is abstract, and that was conventional, well-known, and/or routine by the date of Centripetal's earliest priority date.

83. The Asserted Claims are not adequately supported by the originally-filed specification and original claims for each of the Asserted Patents.

84. Centripetal contends that its products practice its patents but has not produced evidence or expert opinions showing that its products practice its patents. Centripetal also has not argued or shown that it is owed lost profits based on sales of the accused products. Centripetal also has not shown or presented any evidence that it would suffer any harm, much less an irreparable harm, by any alleged infringement. Accordingly, Centripetal cannot show that an injunction is warranted in this case, and it is not entitled to an injunction.

85. Centripetal is not entitled to a finding that this case is exceptional or to an award of enhanced damages, interest, costs, attorneys' fees, or any other relief.

86. PAN is entitled to a finding that this case is exceptional and an award of interest, costs, attorneys' fees, filing fees, and any other relief the Court deems equitable and just.

87. Centripetal's products and patents concern a niche solution in an industry comprised of thousands of products and companies. Centripetal's products have been commercially unsuccessful for many reasons. For example, Centripetal has lost customers because they did not see value in Centripetal's products that justified their cost. PAN and its products have had no impact on Centripetal, its commercial success, or lack thereof.

88. An adequate remedy at law, monetary damages, is available to Centripetal should it prevail, therefore an injunction is not proper.

89. Centripetal has not suffered any irreparable harm by any alleged infringement by PAN.

90. The balance of hardships weighs against granting an injunction on PAN's Accused Products.

91. The public interests weighs against granting an injunction. The public would be harmed by an injunction. Centripetal does not make firewalls. Contrary to Centripetal's assertions, Centripetal could not fill the public's need for the products that PAN provides.

V. TRIABLE ISSUES

A. The Triable Issues as Contended by Centripetal

1. Whether PAN directly infringes Claim 10 of the '903 Patent.
2. Whether PAN induces the infringement of Claim 10 of the '903 Patent.
3. Whether PAN contributes to the infringement of Claim 10 of the '903 Patent.
4. Whether PAN directly infringes Claims 1 and 9 of the '573 Patent.
5. Whether PAN induces the infringement of Claims 1 and 9 of the '573 Patent.
6. Whether PAN contributes to the infringement of Claims 1 and 9 of the '573 Patent.
7. Whether PAN directly infringes Claims 1, 12, 17 of the '797 Patent.
8. Whether PAN induces the infringement of Claims 1, 12, 17 of the '797 Patent.

9. Whether PAN contributes to the infringement of Claims 1, 12, 17 of the '797 Patent.
10. Whether PAN directly infringes Claim 8 of the '437 Patent.
11. Whether PAN induces the infringement of Claim 8 of the '437 Patent.
12. Whether PAN contributes to the infringement of Claim 8 of the '437 Patent.
13. Whether PAN's infringement has been and continues to be willful.
14. Whether Centripetal has suffered damages in an amount to be determined at trial as a direct and proximate cause of Defendants' direct and/or indirect infringement.
15. Whether the Court should enjoin PAN's infringement from the entry of judgment though the expiration of the Asserted Patents.
16. Whether Centripetal has suffered irreparable harm as a result of PAN's infringement.
17. Whether the balance of hardships weighs in favor of granting an injunction on PAN's Accused Products.
18. Whether the public interest weighs in favor of granting an injunction.
19. Whether long-felt need for the claimed inventions, praise by others or industry recognition show that the elements of the Asserted Claims, when taken individually and when taken as an ordered combination, involve only technology which a person of ordinary skill in the art would have considered to be well-understood, routine, and conventional as of the February 10, 2015.
20. What award of damages through trial should be awarded to Centripetal to compensate it for PAN's direct and/or indirect infringement.³

³ Centripetal reserves its right to request an accounting of sales and revenue information for any award for past damages, including pre-judgment and post-judgment interest.

B. The Triable Issues as Contended by Palo Alto are:

1. Whether PAN directly infringes Claim 10 of the '903 Patent.
2. Whether PAN induces the infringement of Claim 10 of the '903 Patent.
3. Whether PAN contributes to the infringement of Claim 10 of the '903 Patent.
4. Whether PAN directly infringes Claims 1 and 9 of the '573 Patent.
5. Whether PAN induces the infringement of Claims 1 and 9 of the '573 Patent.
6. Whether PAN contributes to the infringement of Claims 1 and 9 of the '573 Patent.
7. Whether PAN directly infringes Claims 1, 12, 17 of the '797 Patent.
8. Whether PAN induces the infringement of Claims 1, 12, 17 of the '797 Patent.
9. Whether PAN contributes to the infringement of Claims 1, 12, 17 of the '797 Patent.
10. Whether PAN directly infringes Claim 8 of the '437 Patent.
11. Whether PAN induces the infringement of Claim 8 of the '437 Patent.
12. Whether PAN contributes to the infringement of Claim 8 of the '437 Patent.
13. Whether PAN's Panorama product running PAN-OS v.9.0 or later directly or indirectly infringes Claim 8 of the '437 Patent.
14. Whether PAN's Panorama product running PAN-OS v.9.0 or later when combined with PAN's NGFW product running PAN-OS v.9.0 or later directly or indirectly infringes Claim 8 of the '437 Patent.
15. Whether PAN's NGFW product running PAN-OS v.9.0 or later directly or indirectly infringes Claim 10 of the '903 Patent.
16. Whether PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product directly or indirectly infringes Claim 10 of the '903 Patent.

17. Whether PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product and PAN's XSOAR product directly or indirectly infringes Claim 10 of the '903 Patent.

18. Whether PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XSIAM product directly or indirectly infringes Claim 10 of the '903 Patent.

19. Whether PAN's NGFW product running PAN-OS v.9.0 or later directly or indirectly infringes Claims 1 and 9 of the '573 Patent.

20. Whether PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product directly or indirectly infringes Claims 1 and 9 of the '573 Patent.

21. Whether PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product and PAN's XSOAR product directly or indirectly infringes Claims 1 and 9 of the '573 Patent.

22. Whether PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XSOAR product directly or indirectly infringes Claims 1 and 9 of the '573 Patent.

23. Whether PAN's NGFW product running PAN-OS v.9.0 or later directly or indirectly infringes Claims 1, 12, and 17 of the '797 Patent.

24. Whether PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product directly or indirectly infringes Claims 1, 12, and 17 of the '797 Patent.

25. Whether PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XDR product and PAN's XSOAR product directly or indirectly infringes Claims 1, 12, and 17 of the '797 Patent.

26. Whether PAN's NGFW product running PAN-OS v.9.0 or later when combined with PAN's XSIAM product directly or indirectly infringes Claims 1, 12, and 17 of the '797 Patent.

27. Whether PAN's XDR product when combined with PAN's XSOAR product directly or indirectly infringes Claims 1, 12, and 17 of the '797 Patent.

28. Whether any third party directly infringes Claim 8 of the '437 Patent.

29. If a third party directly infringes Claim 8 of the '437 Patent, whether PAN knew of that infringement.

30. If a third party directly infringes Claim 8 of the '437 Patent, whether PAN actively encouraged that infringement.

31. If a third party directly infringes Claim 8 of the '437 Patent, whether PAN materially contributed to that infringement.

32. Whether any third party directly infringes Claim 10 of the '903 Patent.

33. If a third party directly infringes Claim 10 of the '903 Patent, whether PAN knew of that infringement.

34. If a third party directly infringes Claim 10 of the '903 Patent, whether PAN actively encouraged that infringement, knowing that the third party was induced to infringe.

35. If a third party directly infringes Claim 10 of the '903 Patent, whether PAN materially contributed to that infringement.

36. Whether any third party directly infringes Claims 1 and 9 of the '573 Patent.

37. If a third party directly infringes Claims 1 and 9 of the '573 Patent, whether PAN knew of that infringement.

38. If a third party directly infringes Claims 1 and 9 of the '573 Patent, whether PAN actively encouraged that infringement, knowing that the third party was induced to infringe.

39. If a third party directly infringes Claims 1 and 9 of the '573 Patent, whether PAN materially contributed to that infringement.

40. Whether any third party infringes Claims 1, 12, and 17 of the '797 Patent.

41. If a third party directly infringes Claims 1, 12, and 17 of the '797 Patent, whether PAN knew of that infringement.

42. If a third party directly infringes Claims 1, 12, and 17 of the '797 Patent, whether PAN actively encouraged that infringement, knowing that the third party was induced to infringe.

43. If a third party directly infringes Claims 1, 12, and 17 of the '797 Patent, whether PAN materially contributed to that infringement.

44. Whether PAN had knowledge of any Centripetal patent prior to March 12, 2021 when the Complaint in this lawsuit was filed.

45. Whether PAN first learned of the '437 Patent on March 12, 2021 when the Complaint in this lawsuit was filed.

46. Whether PAN first learned of the '903 Patent on March 12, 2021 when the Complaint in this lawsuit was filed.

47. Whether PAN first learned of the '573 Patent on March 12, 2021 when the Complaint in this lawsuit was filed.

48. Whether PAN first learned of the '797 Patent on July 9, 2021 when the First Amended Complaint in this lawsuit was filed.

49. Whether the asserted claims of the '903 Patent are invalid under 35 U.S.C. § 101 as directed to unpatentable subject matter.

50. Whether the asserted claims of the '573 Patent are invalid under 35 U.S.C. § 101 as directed to unpatentable subject matter.

51. Whether the asserted claims of the '797 Patent are invalid under 35 U.S.C. § 101 as directed to unpatentable subject matter.

52. Whether the asserted claim of the '437 Patent is invalid under 35 U.S.C. § 112 based on a lack of written description support for the claim scope asserted for infringement purposes by Centripetal.

53. If PAN is found to infringe a valid claim of any of the Asserted Patents, whether such infringement is willful.

54. If PAN is found to infringe a valid claim of any of the Asserted Patents, whether, and to what extent, Centripetal is entitled to damages.

55. If PAN is found to infringe a valid claim of any of the Asserted Patents, whether Centripetal has suffered damages in an amount to be determined at trial as a direct and proximate cause of Defendants' direct and/or indirect infringement.

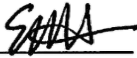
56. If PAN is found to infringe a valid claim of any of the Asserted Patents, whether the Court should enjoin PAN from the entry of judgment though the expiration of the Asserted Patents.

57. If PAN is found to infringe a valid claim of any of the Asserted Patents, whether Centripetal has suffered irreparable harm as a result.

58. Whether the balance of hardships weighs in favor of granting an injunction on PAN's Accused Products.

59. Whether the public interest weighs in favor of granting an injunction.

This Joint Pre-Trial Order is hereby approved this 22nd day of January, 2024.

By: /s/ 
Elizabeth W. Hanes
United States District Judge
Hon. Elizabeth W. Hanes, District Judge

/s/ Stephen E. Noona

Stephen Edward Noona
Virginia State Bar No. 25367
KAUFMAN & CANOLES, P.C.
150 W Main St., Suite 2100
Norfolk, VA 23510
Telephone: (757) 624-3239
Facsimile: (888) 360-9092
senoona@kaufcan.com

Paul J. Andre
Lisa Kobialka
James Hannah
Hannah Lee
Kristopher Kastens
Christina Finn
KRAMER LEVIN NAFTALIS
& FRANKEL LLP
333 Twin Dolphin Drive, Suite 700
Redwood Shores, CA 94065
Telephone: (650) 752-1700
Facsimile: (650) 752-1800
pandre@kramerlevin.com
lkobialka@kramerlevin.com
jhannah@kramerlevin.com
hlee@kramerlevin.com
kkastens@kramerlevin.com
cfinn@kramerlevin.com

**ATTORNEYS FOR PLAINTIFF
CENTRIPETAL NETWORKS, LLC**

By: /s/ Robert W. McFarland
Robert W. McFarland (VSB No. 24021)
MCGUIREWOODS LLP
101 W. Main Street, Suite 9000
Norfolk, Virginia 23510
Telephone: (757) 640-3716
Facsimile: (757) 640-3966
E-mail: rmcfarland@mcguirewoods.com

Jonathan P. Harmon (VSB No. 39081)
David E. Finkelson (VSB No. 44059)
MCGUIREWOODS LLP
Gateway Plaza

800 East Canal Street
Richmond, VA 23219-3916
Telephone: (804) 775-1000
Facsimile: (804) 775-1061
E-mail: dfinkelson@mcguirewoods.com

Brett C. Govett (*Admitted Pro Hac Vice*)
James S. Renard (*Admitted Pro Hac Vice*)
NORTON ROSE FULBRIGHT US LLP
2200 Ross Avenue, Suite 3600
Dallas, Texas 75201
Telephone: (214) 855-8000
brett.govett@nortonrosefulbright.com
jackie.baker@nortonrosefulbright.com

Richard Zembek (*Admitted Pro Hac Vice*)
Daniel S. Leventhal (*Admitted Pro Hac Vice*)
Daniel A. Prati (*Admitted Pro Hac Vice*)
1301 McKinney Street, Suite 5100
Houston, Texas 77010
Telephone: (713) 651-5151
richard.zembek@nortonrosefulbright.com
eric.hall@nortonrosefulbright.com
daniel.leventhal@nortonrosefulbright.com
daniel.prati@nortonrosefulbright.com

Stephanie DeBrow (*Admitted Pro Hac Vice*)
Talbot R. Hansum (*Admitted Pro Hac Vice*)
98 San Jacinto Boulevard, Suite 1100
Austin, Texas 78701
Telephone: (512) 474-5201
stephanie.debrow@nortonrosefulbright.com

James R. Batchelder (*Admitted Pro Hac Vice*)
Andrew T. Radsch (*Admitted Pro Hac Vice*)
ROPES & GRAY LLP
1900 University Avenue, 6th Floor
East Palo Alto, CA 94303
Telephone: (650) 617-4000
james.batchelder@ropesgray.com
andrew.radsch@ropesgray.com

**ATTORNEYS FOR DEFENDANT
PALO ALTO NETWORKS, INC.**